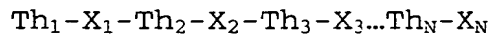


WHAT IS CLAIMED IS:

1. A vaccine comprising a mixture or linear array of peptides, or variants thereof, selected from the peptides set forth in Table 3 and designated Th/A-CTL to Th/I-CTL and linear arrays set forth in Table 4 and designated MVA 6 - MVA 9.

2. A polypeptide having the formula



wherein Th is a immunodominant T helper epitope, X is an MHC Class I cytotoxic T cell epitope and N is any number.

3. The polypeptide according to claim 2 wherein N is 1 to 20.

4. The polypeptide according to claim 3 wherein N is 4 to 15.

5. The polypeptide according to claim 4 wherein N is 6 to 12.

6. A DNA sequence encoding the polypeptide of claim 2.

7. A composition comprising the polypeptide of claim 2 and a carrier.

8. A composition comprising the DNA sequence of claim 6 and a carrier.

add p6
add C3